

**Augusta Complex East Campus
Kennebec County
Augusta, Maine
A-23-71-H-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Augusta Mental Health Institute (AMHI) of Augusta, Maine was issued Air Emission License A-23-71-F-R on July 10, 2000, permitting the operation of emission sources associated with their state offices and mental health facility. The license was subsequently amended on May 28, 2002 (A-23-71-G-A).
2. With the construction and licensing of the new Riverview Psychiatric Center as a separate facility, the Bureau of General Services has requested that the facility name for this license be changed from AMHI to Augusta Complex East Campus (ACEC).
3. ACEC has requested a minor revision to their license in order to remove the equipment associated with the Riverview Psychiatric Center and to add an existing emergency generator not previously included in the license.

B. Emission Equipment

ACEC is licensed to operate the following equipment:

Fuel Burning Equipment

| <u>Equipment</u> | <u>Maximum Capacity (MMBtu/hr)</u> | <u>Maximum Firing Rate (gal/hr)</u> | <u>Fuel Type, % sulfur</u> | <u>Stack #</u> |
|-------------------------|---|--|---------------------------------------|-----------------------|
| Boiler #1 | 29.9 | 199.3 | #6 fuel oil, 2.0% | 1 |
| Boiler #2 | 29.3 | 195.3 | #6 fuel oil, 2.0% | 1 |
| Boiler #3 | 8.4 | 56.0 | #6 fuel oil, 2.0% | 1 |

Electrical Generation Equipment

| <u>Equipment</u> | <u>Power Output (kW)</u> | <u>Firing Rate (gal/hr)</u> | <u>Fuel Type, % Sulfur</u> | <u>Stack #</u> |
|------------------|------------------------------|---------------------------------|--------------------------------|----------------|
| Generator #1* | 500 | 35.6 | diesel fuel, 0.05% | 2 |

*Equipment not previously licensed.

C. Revision Description

Emissions equipment associated with the Riverview Psychiatric Center (RPC) was previously licensed by AMHI on Air Emission License A-23-71-G-A. Since that time, the Department has discerned that the equipment at the RPC facility will be operated and maintained by RPC staff and not by the Bureau of General Services (BGS). BGS does operate and maintain the main boiler house on the Augusta East Side Campus (formally AMHI) and they will continue to maintain the air emission license for the main boiler house.

In addition to separating these two facilities, this modification adds a previously overlooked emergency generator.

D. Application Classification

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Generator #1

ACEC operates one emergency diesel generators.

“Emergency” is defined in Chapter 100 and throughout this document as: “... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the license, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

A summary of the BACT analysis for Generator #1 (500 kW) is the following:

1. ACEC shall fire only diesel fuel with a sulfur content not to exceed 0.05% by weight in Generator #1.
2. Generator #1 shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.
4. Chapter 103 regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. Visible emissions from Generator #1 shall not exceed 20% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

C. Annual Emission Restrictions

ACEC shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

| <u>Pollutant</u> | <u>Tons/Year</u> |
|------------------|------------------|
| PM | 9.7 |
| PM ₁₀ | 9.7 |
| SO ₂ | 95.6 |
| NO _x | 27.8 |
| CO | 2.6 |
| VOC | 0.2 |

ORDER

The Department hereby grants Air Emission License Minor Revision A-23-71-H-M, subject to the conditions found in Air Emission License A-23-71-F-R, in the following amendments: A-23-71-G-A, and in addition to the following conditions:

Condition (19) of Air Emission License A-23-71-G-A is deleted.

Condition (20) of Air Emission License A-23-71-G-A is deleted.

Condition (21) of Air Emission License A-23-71-G-A is deleted.

The following are new Conditions:

(27) Emergency Generator #1

- A. Generator #1 is an emergency generator, as defined in Chapter 100, and is therefore restricted to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on Generator #1.
- B. A log documenting the dates, times, and reason of operation for Generator #1 shall be kept.

- C. Generator #1 shall fire diesel fuel with a sulfur content not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the percent sulfur of the fuel.
- D. Emissions shall not exceed the following:

| Equipment | | PM | PM ₁₀ | SO ₂ | NO _x | CO | VOC |
|--------------|----------|------|------------------|-----------------|-----------------|------|------|
| Generator #1 | lb/MMBtu | 0.12 | - | - | - | - | - |
| | lb/hr | 0.59 | 0.39 | 0.24 | 15.62 | 4.15 | 0.44 |

- E. Visible emissions from Generator #1 shall not exceed 20% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

(28) This amendment shall expire concurrently with Air Emission License A-23-71-F-R.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 11/5/02

Date of application acceptance: 11/8/02

Date filed with the Board of Environmental Protection: _____

This Order prepared by Lynn Ross, Bureau of Air Quality.